

# PATENT ABSTRACTS OF JAPAN

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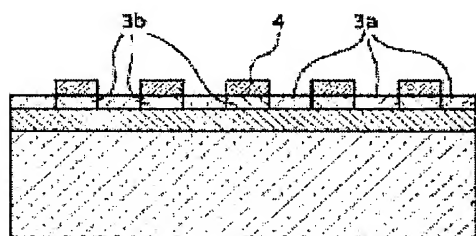
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(54) SUBSTRATE FOR IMMOBILIZING NUCLEIC ACID, METHOD FOR PRODUCING THE SUBSTRATE, AND GLASS PLATE, AND METHOD FOR ANALYZING NUCLEIC ACID

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a substrate enabling a nucleic acid to be stably immobilized on a specified area of the surface thereof.

SOLUTION: This substrate has the following structure: a photocatalyst layer 2 having photocatalytic activity (e.g.  $\text{TiO}_2$  film) is provided on the surface of a glass substrate 1 and the surface of the photocatalyst layer 2 is laminated with a thin film 3 of a water-repellent group-bearing organic compound splittable by photocatalytic action (e.g. fluoroalkyl group-bearing silane compound); wherein the thin film 3 has an arrangement pattern where 1st areas 3b and 2nd areas 3a showing relatively greater wetting tendency and less wetting tendency respectively on irradiation with light via a photomask are regularly arranged, and compound films 4 for immobilizing a



nucleic acid are provided only on the surface of the 1st areas 3b; thus, the nucleic acid can be immobilized stably on the films 4.